

**PATENT**

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
PATENT EXAMINING OPERATION

First Named Inventor: Charli KRUSE

Serial No: 10/820,430

Group Art Unit: 1632

Filed: April 8, 2004

Examiner: Joanne Hama

Att. Docket No.: B1180/20026

Confirmation No.: 7174

For: ISOLATED ADULT PLURIPOTENT STEM CELLS AND METHODS FOR  
ISOLATING AND CULTIVATING THEREOF

**SECOND DECLARATION OF CHARLI KRUSE UNDER 37 CFR § 1.132**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

I, Charli Kruse, Ph.D., a citizen of Germany, hereby declare and state:

1. The resume attached as Exhibit A to my April 26, 2007 Rule 132 Declaration accurately reflects my professional credentials.

2. I am the sole inventor named in the above-identified application.

3. My research is funded in part by Fraunhofer-Gesellschaft zur Förderung der angewandten Forschung e.V., the assignee of the above-identified application.

4. I understand from attorneys for the assignee that claims 1-14 remain rejected under 35 U.S.C. § 112, first paragraph, as allegedly lacking enablement for isolated pluripotent adult stem (IPAS) cells from any species of vertebrate obtained from any exocrine gland tissue, wherein said IPAS cells differentiate into any cell type.

5. The specification already provides evidence of enablement with respect to two divergent species of animal – rats and humans. I now provide evidence that the claimed invention is also enabled for a third species of animal, namely goats.

6. I and/or technicians under my direct supervision obtained IPAS cells from African Boer Goats as described below.

7. Exocrine glandular tissue from the salivary glands of African Boer Goats was prepared and treated as described in the specification of U.S. App. Serial No. 10/820,430 in order to isolate pluripotent adult stem cells therefrom. After cultivating the stem cells in cell culture for 19 passages, the resulting cells were seeded and the stem cells and differentiated cells derived therefrom were stained with antibodies against specific cell markers. The stem cells stained positive for two stem cell markers (see attached Figs. 1A and 1B) and the differentiated cells stained positive for several cell markers having specificity for different cells of all 3 germ layers: ectoderm (see attached Figs. 2A, 2B and 2C), mesoderm (see attached Figs. 3A and 3B) and endoderm (see attached Figs. 4A and 4B).

8. Accordingly, a person reasonably skilled in the art would have been enabled by the original disclosure to isolate the IPAS cells of the claimed invention from a variety of mammalian cells without undue experimentation.

I hereby declare that all statements made herein of my own knowledge are true, and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine and/or imprisonment under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing therefrom.

Date: 29.07.08



Charli Kruse, Ph.D.